

AMENDMENTS IN THE DRAWINGS:

Please amend Figure 1 as provided in replacement sheet 1. Figure 1 is amended to illustrate the driver circuit 80 connected to the flexible flat cable 40. No new matter is presented.

REMARKS

Claims 1-10 and 12-19 are now pending in the application. Claims 1-8, 12, and 13 are amended. Figure 1 is also amended. Claim 11 is cancelled. New claims 14-19 are added. No new matter is presented. Claims 1, 2, 5, 11, and 12 stand rejected under 35 U.S.C. § 102(b). Claims 3, 4, 6-10 have been indicated to contain allowable subject matter. Claim 13 is allowed. Applicants acknowledge the Examiner for indicating that claims 3, 4, 6-10, and 13 contain allowable subject matter. The above amendments and the following remarks are considered by Applicants to overcome each rejection raised by the Examiner and to place the application in condition for allowance. In view of the above amendments and the following remarks, Applicants requests the allowance of claims 1-19.

Figure 1 is amended to more clearly illustrate the features of the claimed invention. No new matter is presented.

Claims 1, 2, 5, 11, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Takahashi (U.S. Patent No. 5, 402, 159). The Examiner takes the position that Takahashi teaches or suggests all the features recited in claims 1, 2, 5, 11, and 12. Applicants respectfully disagree.

Takahashi discloses a piezoelectric ink jet printer using a laminated piezoelectric actuator. The head for a piezoelectric ink jet printer includes a plurality of ejector devices for ejecting ink droplets. Each ejector device has an ink channel body defining an ink channel. The actuator is made up of a plurality of piezoelectric ceramic layers, a plurality of internal positive electrode layers, and a plurality negative electrode layers, which are laminated in such a way that each piezoelectric ceramic layer is sandwiched between each internal positive electrode layer and each internal negative electrode layer.

Claims 1 and 13 are amended to recite that the channel unit has a plurality of pressure chambers and that the actuator unit has a plurality of groups of active portions each group of which includes at least two active portions which are opposed in a first direction to a corresponding one of the plurality of pressure chambers, at respective different positions in a second direction perpendicular to the first direction.

It is respectfully submitted that Takahashi et al. does not teach or suggest the above-

indicated features of amended claims 1 and 13. In contrast to the claimed invention, Takahashi teaches providing a plurality of pressure chambers 32a, 32b, 32c, and a plurality of groups of active portions 44a, 44b, 44c each group of which is opposed in a first direction to a corresponding one of the pressure chambers 32a, 32b, 32c, not at respective different positions in a second direction perpendicular to the first direction, but at respective different positions in the first direction.

The Examiner states that the language “comprising” in the preamble, and the language “having a pressure chamber” in line 2, does not limit the claim to only a single pressure chamber. Claim 1 has been amended to recite that the channel unit has a plurality of pressure chambers and that the actuator unit has a plurality of groups of active portions each group of which includes at least two active portions which are opposed in a first direction to a corresponding one of the plurality of pressure chambers, at respective different positions in a second direction perpendicular to the first direction. Therefore, in view these amendments to claim 1, it is submitted that Takahashi fails to teach or suggest all the features recited in claim 1. Thus, Applicants respectfully submit that Takahashi fails to teach or suggest a plurality of active portions which are opposed to the single pressure chamber at respective different positions along the pressure chamber. Although Takahashi discloses active portions opposed to multiple pressure chambers (See Figure 3), Takahashi does not teach or suggest multiple active portions for a single pressure chamber at respective different positions along the length of the pressure chamber.

Takahashi merely discloses an active portion over the pressure chamber and does not teach or suggest a plurality of active portions provided over the length of the single pressure chamber as provided in the claimed invention. Thus, Takahashi does not teach or suggest the features provided in amended claim 1. Therefore, Applicants request the withdrawal of the rejection of claim 1 under 35 U.S.C. 102(b).

Claims 2, 5, 12 are dependent upon independent claim 1. Therefore, it is submitted that for at least the reasons mentioned above, claims 2, 5, and 12 recite patentable subject

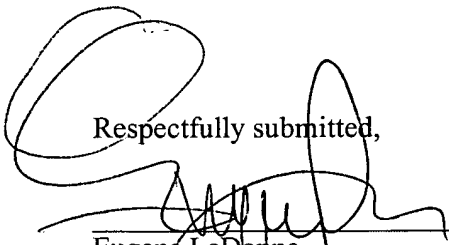
matter. Accordingly, Applicants request the withdrawal of the rejection of claims 2, 5 and 12 under 35 U.S.C. 102(e).

Claims 14-19 are added. Claim 14 recites that the droplet ejecting apparatus further comprises a driver circuit, which drives the actuator unit in a single driving mode in which the driver circuit simultaneously applies respective equal electric voltages to said at least two active portions of an arbitrary one of the plurality of groups so as to deform said at least two active portions and thereby change the volume of the corresponding pressure chamber, and which does not drive the actuator unit in any modes different from the single driving mode. These features are provided in paragraphs 0009, 0052, 0053, and 0058 of the specification.

New claim 15 recites that the common piezoelectric sheet is commonly opposed in the first direction to respective entire areas of the plurality of pressure chambers. This feature is provided in Figures 3 and 5 of the present application. The features recited in claims 16-19 are supported by paragraph [0058] of the specification. No new matter is presented. Applicants request the favorable consideration of new claims 14-19.

In view of the above amendments and remarks, Applicants submit claims 1- 10, and 12-19 recite subject matter that is neither taught nor suggested by the applied references. Thus, for the reasons presented above, claims 1-10, and 12-19 are believed by Applicants to define patentable subject matter and should be passed to issue at the earliest possible time. A Notice of Allowance is requested.

Respectfully submitted,



Eugene LeDonne
Reg. No. 35,930
REED SMITH-LLP
599 Lexington Avenue
New York, NY 10022
(P) 212-521-5402
Attorney for Applicant